

STAFF PROPOSAL:

**ENVIRONMENTAL
PERFORMANCE REPORT**

**FORMS AND INSTRUCTIONS
FOR ENVIRONMENTAL DATA
SUBMITTALS**

OCTOBER 27, 2004

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ENVIRONMENTAL PERFORMANCE REPORT: FORMS AND INSTRUCTIONS FOR ENVIRONMENTAL DATA SUBMITTALS

INTRODUCTION AND OVERVIEW

California law directs the Energy Commission to conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. These assessments and forecasts are used to develop policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety (Public Resources Code § 25301). The *Energy Report*, which the Energy Commission is required to adopt every two years under the terms of Senate Bill 1389 (Chapter 568, Statutes of 2002; Bowen), is the foundation for development of an integrated energy policy for the state. The primary audience for the report is the Governor and Legislature.

The *Environmental Performance Report* (EPR) is one of the critical inputs to the *Energy Report* in that it systematically assesses the environmental effects of California's power generation and transmission system at a state-wide scale. Several major state energy policies are intended to reduce the environmental impact of power generation, including the Renewables Portfolio Standard¹, the Loading Order² contained in the Energy Action Plan³, and policies implementing energy efficiency measures. Other energy policies currently in formation, such as the California Public Utility Commission's (CPUC) Procurement Proceeding and the Legislature's work to readjust the energy market structure, have more implicit environmental protection goals. Policy and decision-makers cannot

¹ Established in 2002 by Senate Bill 1078 (SB 1078, Sher, Chapter 516, Statutes of 2002).

² As adopted in the state Energy Action Plan (see footnote 3), the loading order expresses the state's preference for meeting increased electricity demand through increase energy efficiency first, followed by increased renewable energy and distributed generation, and then additional clean fossil fuel central station generation.

³ The Energy Action Plan establishes shared goals and specific actions to ensure that adequate, reliable, and reasonably-priced electrical power and natural gas supplies are achieved and provided through policies, strategies, and actions that are cost-effective and environmentally sound for California's consumers and taxpayers. The plan was adopted by the Energy Commission, the California Power Authority, and the California Public Utilities Commission in 2003. Information on the Energy Action Plan, including the adopted plan and information on the ongoing meetings among the three agencies, is available at: http://www.energy.ca.gov/energy_action_plan/index.html.

develop informed energy policies that seek to improve environmental quality without information on the status, trends and key issues associated with power generation and transmission, and its environmental and social effects.

The Legislature has directed the Energy Commission to prepare the *Environmental Performance Report* as one of the key reporting mechanisms so that they can understand the environmental status and trends of California's diverse power generation fleet. The Energy Commission will use this information to assess the effectiveness of new policies that are directly or indirectly intended to improve environmental quality. To our knowledge, the *Environmental Performance Reports* are the only reports to systematically examine the environmental attributes and impacts of all sectors of California's nearly 60,000 megawatt (MW) power generation fleet.

In the 2001 and 2003 *Environmental Performance Reports*, Energy Commission staff had difficulty obtaining environmental data for generation sectors outside of direct Energy Commission jurisdiction: thermal plants 50 MW and larger. As stated in the 2003 *Environmental Performance Report*: "Lack of environmental data hinders the Energy Commission's ability to report fully on the environmental performance and trends of the state's electrical generation and transmission system." Each environmental regulatory agency compiles the data it needs to meet its own specific statutory requirements, which means that energy-related environmental data varies widely by agency and media (air, water, land). Through consultation with sister agencies, Energy Commission staff realize that data for many generation sectors are not collected or compiled in a manner that meets *Environmental Performance Report* needs.

Because of the existing data gaps, Energy Commission staff cannot report with great accuracy or certainty on large components of the state's power generation system. For example, staff have good data on air emissions for the new combined cycle and older steam boiler units, but poor data on the cogeneration and peaker portions of the natural gas fleet (over 9,000 MW). Comprehensive data on the environmental effects of the in-state hydro sector, which at 14,000 MW comprises one fourth of the state's generation capacity, are almost non-existent. Information on environmental effects of the nearly 7,000 MW in renewable resources is sporadic and inconsistent across sectors.

Energy Commission staff is initiating a data collection effort as a means to systematically acquire data directly from generators that is not readily available from other agencies or Energy Commission datasets. Staff seeks to supplement the data available from other agencies, our own Public Interest Energy Research (PIER) research and the scientific literature with targeted data requests of generators. It is important to note that the *EPR Forms and Instructions* for the 2005 Energy Report do not identify the full range of environmental information that may be relevant to these assessments. This is because we believe that the Energy Commission staff is likely to find that collecting a targeted set of

information will be sufficient for it to be able to address its specific concerns for this Energy Report cycle. However, should it become apparent later in the 2005 Energy Report cycle or in future Energy Report cycles that additional information is needed; the Energy Commission is retaining the ability to identify that information and request that it be provided.

Organization of this Manual

The first part of the *EPR Forms and Instructions* provides general information about filing requirements and use of the data. The forms and instructions for the electric generation system in California are in Appendix A. Selected terms used in this document are found in Appendix B.

Who Must File Reports?

Each form has specific instructions on who must file. A summary of forms that must be filed by electrical generators is provided on the next page (page 4).

Data Collection Background

Starting in 2001, the Energy Commission has been synthesizing data from our own files with data from other agencies and publicly available databases in order to estimate the type and magnitude of impact from the electrical, natural gas and transmission line sectors. As reported in the 2001 and 2003 *Environmental Performance Reports*, there is a need to collect data directly from generators at a more disaggregated scale in order to provide analysis on regional and seasonal trends, and to fill in gaps in our knowledge about the system. In 2003, staff requested some generation and environmental data from hydropower facilities through an Executive Director data request, but no other data collection has been attempted to date.

Authority to Collect Environmental Data

Public Resources Code section 25301 gives the Energy Commission broad authority to collect a wide range of data related to all aspects of the energy industry, including environmental quality. Specifically, Public Resources Code section 25300 (b) finds that the government has an essential role in ensuring that a reliable supply of energy is available "consistent with. . . preservation of environmental quality." In addition, Public Resources Code section 25301 directs the Energy Commission to conduct forecasts and assessments in order to develop energy policies that, among other objectives, "protect the environment". This directive is reiterated in Public Resources Code section 25302, which explicitly states that the Energy Report shall include a consideration of environmental protection and quality in conducting its biennial assessments. These statutory sections, together with the provisions in Public Resources Code section 25200 et seq. make clear that the Energy Commission is authorized to collect comprehensive data on environmental issues associated with energy production and use within the State.

SUMMARY OF WHO MUST FILE THE FORMS

PRIMARY FUEL TYPE*	NAMEPLATE CAPACITY									
	0-0.99 MW		1-10 MW		10.1-20 MW		20.1-49.9 MW		> = 50 MW	
	Data to be supplied:	Form #	Data to be supplied:	Form #	Data to be supplied:	Form #	Data to be supplied:	Form #	Data to be supplied:	Form #
BIOMASS (including Liquid Biofuels)	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001
				1002, 1003, 1004		1002, 1003, 1004		1002, 1003, 1004		1002, 1003, 1004
			Air Quality		Air Quality		Air Quality		Air Quality	
			Economic	1009	Economic	1009	Water Use and Discharge	1005, 1006, 1007	Water Use and Discharge	1005, 1006, 1007
COAL/COKE (includes out- of-state)	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001
				1002, 1003, 1004		1002, 1003, 1004		1002, 1003, 1004		1002, 1003, 1004
			Air Quality		Air Quality		Air Quality		Air Quality	
			Economic	1009	Economic	1009	Water Use and Discharge	1005, 1006, 1007	Water Use and Discharge	1005, 1006, 1007
DIGESTER GAS	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001
				1002, 1003, 1004		1002, 1003, 1004		1002, 1003, 1004		1002, 1003, 1004
			Air Quality		Air Quality		Air Quality		Air Quality	
			Economic	1009	Economic	1009	Water Use and Discharge	1005, 1006, 1007	Water Use and Discharge	1005, 1006, 1007

* See Appendix B for definitions of each primary fuel type

SUMMARY OF WHO MUST FILE THE FORMS

PRIMARY FUEL TYPE*	NAMEPLATE CAPACITY									
	0-0.99 MW		1-10 MW		10.1-20 MW		20.1-49.9 MW		> = 50 MW	
	Data to be supplied:	Form #	Data to be supplied:	Form #	Data to be supplied:	Form #	Data to be supplied:	Form #	Data to be supplied:	Form #

GEOTHERMAL	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001
			Air Quality	1002, 1003, 1004	Air Quality	1002, 1003, 1004	Air Quality	1002, 1003, 1004	Air Quality	1002, 1003, 1004
			Economic	1009	Economic	1009	Water Use and Discharge	1005, 1006, 1007	Water Use and Discharge	1005, 1006, 1007
							Economic	1009	Economic	1009
HYDROPOWER	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001
			Air Quality	1002, 1003, 1004	Air Quality	1002, 1003, 1004	Air Quality	1002, 1003, 1004	Air Quality	1002, 1003, 1004
			Hydro Oper. and Gen'l Info.	1008	Hydro Oper. and Gen'l Info.	1008	Hydro Oper. and Gen'l Info.	1008	Hydro Oper. and Gen'l Info.	1008
			Economic	1009	Economic	1009	Economic	1009	Economic	1009
LANDFILL GAS	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001
			Air Quality	1002, 1003, 1004	Air Quality	1002, 1003, 1004	Air Quality	1002, 1003, 1004	Air Quality	1002, 1003, 1004
			Economic	1009	Economic	1009	Water Use and Discharge Economic	1005, 1006, 1007 1009	Water Use and Discharge Economic	1005, 1006, 1007 1009

SUMMARY OF WHO MUST FILE THE FORMS

PRIMARY FUEL TYPE*	NAMEPLATE CAPACITY									
	0-0.99 MW		1-10 MW		10.1-20 MW		20.1-49.9 MW		> = 50 MW	
	Data to be supplied:	Form #	Data to be supplied:	Form #	Data to be supplied:	Form #	Data to be supplied:	Form #	Data to be supplied:	Form #
MUNICIPAL SOLID WASTE	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001
			Air Quality	1002, 1003, 1004	Air Quality	1002, 1003, 1004	Air Quality	1002, 1003, 1004	Air Quality	1002, 1003, 1004
			Economic	1009	Economic	1009	Water Use and Discharge	1005, 1006, 1007	Water Use and Discharge	1005, 1006, 1007
							Economic	1009	Economic	1009
NUCLEAR									Gen'l Info.	1001
									Air Quality	1002, 1003, 1004
									Water Use and Discharge	1005, 1006, 1007
									Economic	1009
OIL/NATURAL GAS	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001
			Air Quality	1002, 1003, 1004	Air Quality	1002, 1003, 1004	Air Quality	1002, 1003, 1004	Air Quality	1002, 1003, 1004
			Economic	1009	Economic	1009	Water Use and Discharge	1005, 1006, 1007	Water Use and Discharge	1005, 1006, 1007
							Economic	1009	Economic	1009
SOLAR PV			Gen'l Info.	1001						
			Economic	1009						

SUMMARY OF WHO MUST FILE THE FORMS

PRIMARY FUEL TYPE*	NAMEPLATE CAPACITY									
	0-0.99 MW		1-10 MW		10.1-20 MW		20.1-49.9 MW		> = 50 MW	
	Data to be supplied:	Form #	Data to be supplied:	Form #	Data to be supplied:	Form #	Data to be supplied:	Form #	Data to be supplied:	Form #
SOLAR THERMAL	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001
			Air Quality	1002, 1003, 1004	Air Quality	1002, 1003, 1004	Air Quality	1002, 1003, 1004	Air Quality	1002, 1003, 1004
			Economic	1009	Economic	1009	Water Use and Discharge	1005, 1006, 1007	Water Use and Discharge	1005, 1006, 1007
							Economic	1009	Economic	1009
WIND	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001	Gen'l Info.	1001
			Economic	1009	Economic	1009	Economic	1009	Economic	1009
FOR ANY ANCILLARY EQUIPMENT BEING USED ON SITE WHICH IS DIRECTELY RELATED TO RELIABIITY OF DAY-TO-DAY POWER PRODUCTION (e.g., Natural Gas or Diesel Fired Back-Up Generation at a Nuclear Facility)			Air Quality	1002, 1003	Air Quality	1002, 1003	Air Quality	1002, 1003	Air Quality	1002, 1003

General Data Collection Instructions

The following instructions pertain to all data collection forms.

Who to Contact if You Have Questions

If you have questions about the Energy Commission's data collection or about filling out forms, please contact:

Natasha Nelson
California Energy Commission
1516 Ninth Street, MS-40
Sacramento, CA 95814

or

EPRDATA@energy.state.ca.us

or

phone (916) 654-6960 fax (916) 651-8868

If you have questions about how this environmental data is used in the *Environmental Performance Reports*, please contact:

Jim McKinney
Project Manager, Environmental Performance Reports
1516 Ninth Street, MS 48
Sacramento, CA 95814

Or

jmckinne@energy.state.ca.us

or

phone (916) 654-3999

Time Periods for Reporting

These forms should be submitted no later than the 15th of February 2005. Reporting will be for an entire calendar year and all forms, except for those relating to hydropower, are requesting 2004 data. Hydropower forms request historical and 2003 data.

Completed forms that are provided electronically can be emailed no later than the 15th of February 2005 (the submittal date). If completed forms are mailed, then they can be postmarked no later than the 15th of February 2005 (the submittal date).

Extension of Deadlines

The company responsible or delegated the responsibility for completing a form may apply for an extension from the Energy Commission's Executive Director. The request for extension must be filed prior to the 15th of February 2005 and be based on good cause. The Executive Director will act on an application within five business days after it is received at the Energy Commission. The Executive

Director's decision may be appealed to the full Energy Commission. The Energy Commission will act on an appeal within 30 days after the appeal is received.

Previously-submitted Reports

If data requested on a form is exactly the same data included in a previous report submitted by the same company to another Energy Commission database, the generator may refer to the previously submitted data with sufficient specificity to allow the data to be retrieved easily.

Release of Data

The California Legislature has declared that access to information concerning the conduct of people's business is a fundamental and necessary right of every person in California. The Legislature has also recognized that sound reasons exist for protecting privacy. The Energy Commission adopted regulations that give members of the public an opportunity to exercise their right to inspect and copy Energy Commission records with the least possible delay and expense, while protecting legitimate confidentiality interests. Any person providing data to the Energy Commission can file a petition requesting that specific data is a marketing or trade secret that should not be publicly disclosed. The Energy Commission will act on a petition and provide a written decision determining whether the specific information is a marketing or trade secret. Complete information on the Energy Commission's confidentiality process can be found at California Code of Regulations, Title 20, section 2501 et seq. Questions about confidentiality should be directed to Fernando DeLeon at (916) 654-4873 or fdeleon@energy.state.ca.us. Parties should note that the Energy Commission's regulations allow the release of certain confidential data that has been aggregated to the point where confidentiality is protected.

In addition, records previously designated confidential may be released in either of the following circumstances:

1. Upon written permission for such release from all entities who have a right to maintain the information confidential; or
2. Under any other circumstances where the information is no longer entitled to confidential treatment. In this case, the Executive Director shall provide notice to the person who originally submitted the information of the intent to release that information. An appeal may be filed with the Energy Commission within 14 days of that notice, and the Energy Commission shall issue a decision within four weeks of its filing.

Submittal Format

Forms shall be filled out using any data-based program such as Excel, Access, or FoxPro. If forms are not prepared in Excel, the submittal should also include a tab-delimited file of the data in case there are problems importing the data from its native format.

The Energy Commission will prepare forms that can be downloaded directly from an Energy Commission website after the Committee Order has been released. You will also be able to request the forms be sent to you on diskette or on CD.

Declaration Required with Each Data Submittal

Each data submittal must be accompanied by a declaration executed under penalty of perjury of the laws of the State of California by an authorized employee of the company responsible for the submittal that the data contained in the submittal is true and correct.

An example of a declaration that contains the required information is:

Person submitting the Report: John Smith
Eleccom, Inc.
555 Main Street
Sacramento, CA 95814
Phone: (888) 777-7777 fax (888) 777-6666
Email: eleccom@valley.com
www.eleccom.com

Company responsible for
submitting the report: National Power
2424 Green Street
San Francisco, CA
Phone: (415) 234-5678 Fax (415) 234-2345
Email: np@legacy.com
www.national.power.com

I certify under the penalty of perjury of the laws of the State of California that I am authorized by National Power to submit the enclosed report. This report fulfills the declaration requirement for the period beginning January 1, 2003 and ending December 31, 2004. The matters contained in this report are, to the best of my knowledge and belief and based on diligent investigation, true, accurate, and complete.

Signed John Smith, Eleccom

Date

Uses of Environmental Data

Work Plans and scoping for the 2005 Environmental Performance Report are still under review, but the data from this effort is expected to be used to:

1. Compile criteria air emissions by California power plants in context of other emission sources and assessment of regional and seasonal aspects of generation emissions;

2. Assess water use efficiency and trends in cooling technology between recently constructed and older California power plants;
3. Assess wastewater disposal system trends between recently constructed and older California power plants;
4. Compile data on a number of factors that are influenced by hydropower operations on a statewide basis; and
5. Compile the effect a power plant can have on local communities' economies.

In future years, as the dataset becomes more robust, and energy policies are adopted by agencies such as the Energy Commission and the CPUC, the data could provide several benefits to electrical generators including:

1. Counties could use the data to create Programmatic Environmental Impact Reports (EIRs). Programmatic EIRs are an effective way to reduce the time it takes to permit construction and maintenance activities, especially those that fall into exclusion categories.
2. Regional problems could be identified and isolated. As a result, research to solve such problems could become more focused and effective.
3. The percent of the generation fleet in compliance with existing regulations and permits limits could be compiled by fuel type. This could be used in promoting certain types of generation over others during procurement proceedings at the CPUC.

**CALIFORNIA ENERGY COMMISSION
ENVIRONMENTAL PERFORMANCE REPORT
FORMS AND INSTRUCTIONS**

**APPENDIX A: ELECTRIC GENERATION
SYSTEM DATA FORMS AND INSTRUCTIONS**

CEC 1001: Power Plant Identification and Physical Location

Purpose: This form provides the power plant identification information and gives information on physical location of those features by both geographic coordinates and Assessor Parcel Number. This information will be used to update and confirm basic plant identification, ownership and location information.

Who must file: Each energy service provider that generates or sells electricity to customers in California. Self-generating facilities must also provide the requested information.

	0-0.99 MW	1-10 MW	10.1-20 MW	20.1-49.9 MW	>=50MW
BIOMASS	Y	Y	Y	Y	Y
COAL (includes out of state)	Y	Y	Y	Y	Y
DIGESTER GAS	Y	Y	Y	Y	Y
GEOHERMAL	Y	Y	Y	Y	Y
HYDRO	Y	Y	Y	Y	Y
LANDFILL GAS	Y	Y	Y	Y	Y
MUNI. SOLID WASTE	Y	Y	Y	Y	Y
NUCLEAR	N	N	N	N	Y
OIL/NATURAL GAS	Y	Y	Y	Y	Y
SOLAR PV	N	Y	N	N	N
SOLAR THERMAL	Y	Y	Y	Y	Y
WIND	Y	Y	Y	Y	Y

When to file: Submit no later than the 15th of February 2005. If requesting an extension, please see *Environmental Performance Report; Forms and Instructions*, page 8.

How to file: Reports can be submitted on compact disc or diskette, e-mail or other digital media. Reports should be compatible with an IBM system.

Where to file:

California Energy Commission
EPR Data Response, MS-40
1516 Ninth Street
Sacramento, CA 95814
or

EPRDATA@energy.state.ca.us

If you have questions, contact us through e-mail at:
EPRDATA@energy.state.ca.us.

Instructions for Form CEC 1001:

Part A

1. **Plant Name.** Name of the power plant, wind farm (groups of turbines), or hydropower facility (groups of powerhouses).
2. **Aliases.** If the power plant was previously known by another name, or another name is used in national or state databases, please provide staff the other names so we can ensure consistency between datasets.
3. **CEC Plant ID.** The California Energy Commission will assign this code of identification when the power plant is first reported. The respondent should use the Energy Commission assigned code if already available, otherwise leave blank if you have not been assigned a code.
4. **EIA Plant ID.** Code of identification used by the Energy Information Administration. Also known as EIA Facility Code.
5. **Plant Location.** Location of the power plant with street address, city, county, state, and zip code. The map coordinates may be submitted as latitude/longitude or as UTM coordinates, and only one is required. The preferred location of the map coordinate is the building where the generator is operating, or in the case of solar PV or wind, the front gate or main staff building. Map coordinates for hydropower infrastructure components should be submitted on Form CEC1008 instead of this form.
6. **Plant Owner.** The full legal name of the plant owner and principal business address with street address, city, state, and zip code.
7. **Plant Owner Contact.** Provide the name and contact information of the primary person who compiled the forms.
8. **Plant Operator.** The full legal name of the plant operator and principal business address with street address, city, state, and zip code.
9. **Plant Operator Contact.** Provide the name and contact information of a person at the facility itself who could answer questions about facility operation submittals.

Part B

10. **Assessor's Parcel Number (APN).** Each parcel of land under the power plant owner's control should be listed on a separate line. The APN number can be found on the annual property tax bill set by the County Assessor's Office. It is generally a three-part number that is broken with dashes.

11. **County (CODE).** Report the two-digit county number where the parcel is located.

01 Alameda	21 Marin	40 San Luis Obispo
02 Alpine	22 Mariposa	41 San Mateo
03 Amador	23 Mendocino	42 Santa Barbara
04 Butte	24 Merced	43 Santa Clara
05 Calaveras	25 Modoc	44 Santa Cruz
06 Colusa	26 Mono	45 Shasta
07 Contra Costa	27 Monterey	46 Sierra
08 Del Norte	28 Napa	47 Siskiyou
09 El Dorado	29 Nevada	48 Solano
10 Fresno	30 Orange	49 Sonoma
11 Glenn	31 Placer	50 Stanislaus
12 Humboldt	32 Plumas	51 Sutter
13 Imperial	33 Riverside	52 Tehama
14 Inyo	34 Sacramento	53 Trinity
15 Kern	35 San Benito	54 Tulare
16 Kings	36 San Bernardino	55 Tuolumne
17 Lake	37 San Diego	56 Ventura
18 Lassen	38 San Francisco	57 Yolo
19 Los Angeles	39 San Joaquin	58 Yuba
20 Madera		

Part C.

While this section of CEC Form 1001 is similar to **CEC 1304 Schedule 1 Part B Generator Information**, which is submitted to the Energy Commission's Demand Analysis Office, this shorter form will allow our offices to coordinate our databases and to ensure our agency has the correct number of generator and utility boilers in both databases. In addition, **CEC 1304 Schedule 1 Part B Generator Information** is not answered by any generator less than 1 MW, so for all generators of this size, this will be new information.

12. **Generating Unit.** Report each generating unit on a separate line. You may use the unique identifier that your company uses in lieu of the numbering system presented in the template.
13. **EIA ID.** Code of identification used by the Energy Information Administration.
14. **Status.** For the reporting year (2004) provide the status of the generator and utility boiler units such as:
- Operating
 - Maintenance
 - Standby
 - Cold Standby
 - On Test
 - Out of Service
 - Indefinite Shutdown
 - Retired

CEC 1001: Power Plant Identification and Physical Location

Part A

Plant Name	
Other Aliases	
CEC Plant ID	
EIA Plant ID	
Plant Location	
Street	
City	
County	
State	
Zip Code	
Latitude (Degrees/Minutes/Seconds or UTM Easting)	
Longitude (Degrees/Minutes/Seconds or UTM Northing)	
Plant Owner	
Full Legal Name	
Street	
City	
State	
Zip Code	
Plant Owner Contact	
Full Legal Name	
Phone	
Email	
Plant Operator	<i>(Leave blank if same as owner)</i>
Full Legal Name	
Street	
City	
State	
Zip Code	
Plant Operator Contact	
Full Legal Name	
Phone	
Email	

CEC 1001: Power Plant Identification and Physical Location (continued)

Part B

ASSESSOR'S PARCEL NUMBER (APN)	COUNTY (CODE)
PARCEL (S) WHERE PRIMARY GENERATION OCCURS*	
PARCEL (S) WHERE FUEL STORAGE OR FUEL GENERATION OCCURS*	
PARCEL (S) WHERE GENERATION IS CONNECTED TO THE TRANSMISSION LINE GRID OCCURS*	
OTHER RELATED PARCELS*	

*Add rows as needed to accommodate more parcels

Part C

Generator ID	EIA Code	Status	Comments
1			
2			
3			
4			
5			
6			
Utility Boiler ID	EIA Code	Status	Comments
1			
2			
3			
4			
5			
6			

The template illustrates the preferred data layout; power plant owners may submit the data in a text or database format (such as Access) rather than a spreadsheet.

CEC 1002, 1003 and 1004: Reporting of Criteria and Non-criteria Emissions (Including CO₂)

Purpose: Energy Commission staff use emissions data from two key federal databases for reporting on air emissions from the thermal generation fleet. These are the U.S. Environmental Protection Agency's Continuous Emissions Monitoring System (CEMS) databases (sometimes referred to as the "Acid Rain" database), and the E-GRID database. Information from these databases is not comprehensive enough for Energy Commission staff to fully assess and report on the full suite of emissions from all sectors of the state's diverse thermal generation fleet. These forms provide the emission factors of criteria and noncriteria emissions from source tests and monitoring, which staff will use in conjunction with currently available data.

Who must file: Each energy service provider one MW or larger that generates and sells electricity to customers in California with the exception of solar photovoltaic and wind providers. Self-generating facilities must also provide the requested information.

	0-0.99 MW	1-10 MW	10.1-20 MW	20.1-49.9 MW	>=50MW
BIOMASS	N	Y	Y	Y	Y
COAL (includes out of state)	N	Y	Y	Y	Y
DIGESTER GAS	N	Y	Y	Y	Y
GEOHERMAL	N	Y	Y	Y	Y
HYDRO	N	N	N	N	N
LANDFILL GAS	N	Y	Y	Y	Y
MUNI. SOLID WASTE	N	Y	Y	Y	Y
NUCLEAR	N	N	N	N	Y
OIL/NATURAL GAS	N	Y	Y	Y	Y
SOLAR PV	N	N	N	N	N
SOLAR THERMAL	N	Y	Y	Y	Y
WIND	N	N	N	N	N
ANCILLARY SYSTEMS (Back-Up Generators)	N	Y	Y	Y	Y

Screening Questions:

1. Are you subject to U.S. Environmental Protection Agency Acid Rain (Title IV) reporting requirements? If yes, please complete the CEC 1002 Hazardous Air Pollutant Emission Factor Form and the following rows of the CEC 1003 Criteria Air Pollutant Emission Factor Form: CO, VOC, PM, PM10, and PM2.5. If no, please see below.

2. Do you currently report electric generation and fuel use data to the Energy Commission under Form CEC-1304 Schedule 2, Part A? If yes, please complete the CEC 1002 Hazardous Air Pollutant Emission Factor Form and the CEC 1003 Criteria Air Pollutant Emission Factor Form. If no, please see below.

3. Are your answers to 1. and 2. above no? Please complete form CEC-1304 Schedule 2, Part A, the CEC 1002 Hazardous Air Pollutant Emission Factor Form and the CEC 1003 Criteria Air Pollutant Emission Factor Form.

When to file: Submit no later than the 15th of February 2005. If requesting an extension, please see *Environmental Performance Report; Forms and Instructions*, page 8.

How to file: Reports can be submitted on compact disc or diskette, e-mail or other digital media. Reports should be compatible with an IBM system.

Where to file:

California Energy Commission
EPR Data Response, MS-40
1516 Ninth Street
Sacramento, CA 95814

or

EPRDATA@energy.state.ca.us

If you have questions, contact us through e-mail at:
EPRDATA@energy.state.ca.us.

Instructions for Form CEC 1002:

This form should be completed by any facility that has not submitted information under AB 2588 (Air Toxics "Hot Spots" Information and Assessment Act) to their local air district. For any facility reporting diesel engines, the only emission factor required is diesel particulate matter.

Enter the generation company, cooperative, public division, or municipality name where indicated, and the remainder of the information as follows in each of the columns:

1. **Pollutant.** Provide the common or IUPAC (International Union of Pure and Applied Chemistry) name of the hazardous pollutant.
2. **Abbreviation or designation.** Provide the CAS (Chemical Abstract Services) number of the pollutant (if known).

3. **Emission Factor – Fuel Based.** Provide the pounds of pollutant per million British thermal units of fuel used. OR
4. **Emission Factor – Generation Based.** Provide the pounds of pollutant per gross megawatt hour of electricity generated.
5. **Date of Source Test.** Report the date of the source test. All dates should be in the form of month, day, year. If you have no data, then please indicate as such in the comment field.

Instructions for Form CEC 1003:

Facilities should complete this form only if you have a source test or continuous emission monitoring which gave a measure of your criteria or non-criteria emissions in relationship to your fuel or generation during that same time period. Enter "A" in the Verification column if you have no such monitoring and skip the remainder of the form. For any facility reporting diesel engines, the only emission factor required is diesel particulate matter (if not given in Form CEC 1002).

Enter the generation company, cooperative, public division, or municipality name where indicated, and the remainder of the information as follows in each of the columns:

1. **Emission Factor – Fuel Based.** Provide the pounds of pollutant per million British thermal units of fuel used. OR
2. **Emission Factor – Generation Based.** Provide the pounds of pollutant per gross megawatt hour of electricity generated.
3. **Verification Type.** Report the method by which the emission factor was derived using the codes provided below:
 - S** = source test
 - C** = continuous emission monitor (CEM)
 - A** = emission factors taken from U.S. Environmental Protection Agency publication AP-42
4. **Date of Source Test.** Report the date of the source test. All dates should be in the form of month, day, year. If you have no data, please indicate as such in the comment field.

Instructions for CEC 1004:

If you use hybrid (wet/dry) or wet cooling towers or evaporative inlet air chilling for your generating unit and your facility has a generating capacity of one MW or greater, you must fill out this form.

1. **Average Daily Circulating Water Rate.** The response should be the average of all the daily circulating water rates for the month.
2. **Average Total Dissolved Solids Content of Cooling Water.** The average measured (not estimated) Total Dissolved Solids of the circulating make-up water within the cooling tower.
3. **Drift Rate.** The percentage of circulating cooling water that exits the cooling tower as drift (liquid droplets). Include the measured rate, if available, but can be the manufacturer's published (guaranteed) rate.

CEC 1002: Hazardous Air Pollutant Emission Factor

Date of Submittal: _____

Reporting for Year: 2004

Project Owner: _____

Project Operator: _____

Facility Name: _____

Facility # or ID _____

Unit # or ID _____

Pollutant	Abbreviation or Designation	Emission Factor		Generation Based (lbs/MW hr)	Date of Source Test (MM/DD/YYYY)	Comments
		Fuel Based (lbs/mmBtu)				
			or			

Note: If the facility has more than one generating unit, submit multiple copies of this form.

CEC 1003: Criteria and Non-Criteria Air Pollutant Emission Factors (Including CO₂)

Date of Submittal: _____
 Project Owner: _____
 Facility Name: _____
 Facility # or ID _____
 Unit # or ID _____

Reporting for Year: 2004
 Project Operator: _____

Pollutant	Abbreviation	Emission Factor		Verification		Comments
		Fuel Based (lbs/mmBtu)	Generation Based (lbs/MW/hr)	Type (CODE)	Date of Source Test or CEMS (MM/DD/YYYY)	
Oxides of Nitrogen (see note below)	NO _x		or			
Sulfur dioxide (see note below)	SO ₂					
Carbon Monoxide	CO					
Volatile Organic Compounds (non-methane, non-ethane)	VOC					
Particulate Matter	PM					
Particulate Matter less than 10 microns in diameter	PM ₁₀					
Particulate Matter less than 2.5 micron in diameter	PM _{2.5}					
Carbon Dioxide (see note below)	CO ₂					

Note 1: NO_x, SO₂, and CO₂ need not be reported if already reporting that hourly data to EPA Acid Rain Program.

Note 2: If the facility has more than one generating unit, submit multiple copies of this form.

CEC 1004: MONTHLY COOLING WATER CIRCULATION USED BY POWER PLANT

Date of Submittal: _____
 Project Owner: _____
 Facility Name: _____
 Facility # or ID _____
 Unit # or ID _____

Reporting for Year: 2004
 Project Operator: _____

REQUEST: List monthly circulating water rate, TDS and drift rate in each cooling tower. The entry should be the average of your daily rates.

MONTH	AVERAGE DAILY CIRCULATING WATER RATE (gallons per minute)	AVERAGE TOTAL DISSOLVED SOLIDS CONTENT OF COOLING WATER (ppm)	DRIFT RATE (% of circulating water rate)
01			
02			
03			
04			
05			
06			
07			
08			
09			
10			
11			
12			

If the facility has more than one generating unit, submit multiple copies of this form

CEC 1005: Classification of Power Plant Cooling Technology

Purpose: These forms request information regarding power plant cooling technology. This information will allow staff to monitor trends in cooling technology for correlation with water conservation. As California's energy demand grows to meet an expanding economy and increasing population, so does its demand grow for fresh water.

Who must file: Each energy service provider that generates or sells electricity in California that is greater than 20MW and uses cooling technology with the exception of solar photovoltaic and wind providers. Self-generating facilities must also provide the requested information.

	0-0.99 MW	1-10 MW	10.1-20 MW	20.1-49.9 MW	>=50MW
BIOMASS	N	N	N	Y	Y
COAL (includes out of state)	N	N	N	Y	Y
DIGESTER GAS	N	N	N	Y	Y
GEOHERMAL	N	N	N	Y	Y
HYDRO	N	N	N	N	N
LANDFILL GAS	N	N	N	Y	Y
MUNI. SOLID WASTE	N	N	N	Y	Y
NUCLEAR	N	N	N	N	Y
OIL/NATURAL GAS	N	N	N	Y	Y
SOLAR PV	N	N	N	N	N
SOLAR THERMAL	N	N	N	Y	Y
WIND	N	N	N	N	N

When to file: Submit no later than the 15th of February 2005. If requesting an extension, please see *Environmental Performance Report Forms and Instructions*, page 8.

How to file: Reports can be submitted on compact disc or diskette, e-mail or other digital media. Reports should be compatible with an IBM system.

Where to file:

California Energy Commission
EPR Data Response, MS-40
1516 Ninth Street
Sacramento, CA 95814
or
EPRDATA@energy.state.ca.us

If you have questions, contact us by email at:
EPRDATA@energy.state.ca.us .

Instructions for Form CEC 1005:

Enter the generation company, cooperative, public division, or municipality name where indicated, as well as the facility and unit information, then fill out the remainder of the information as follows in each of the columns:

1. **Unit Name or ID.** If your facility has more than one generating unit or utility boiler, please specify the cooling used at each unit on a separate line. Use the same names or ID's from Form CEC 1001.
2. **Cooling Technology.**
Identify specific cooling technology, using the codes provided below:
 - 1 = Wet Cooling Tower
 - 2 = Dry Cooling Tower
 - 3 = Hybrid Cooling (indicate % wet and % dry in the comment field)
 - 4 = Once-Through Cooling
 - 5 = Evaporative inlet air chilling
 - 6 = Other: Please describe in the comment field
3. **Year.** Use four-digit year (e.g., 2001) for this entry.

CEC 1005: Classification of Power Plant Cooling Technology

Date of Submittal: _____

Reporting for Year: 2004

Project Owner: _____

Project Operator: _____

Facility Name: _____

Facility # or ID _____

REQUEST: Identify the cooling technology used on a unit by unit basis and the year the technology went into use.

GENERATING UNIT NUMBER OR ID	COOLING TECHNOLOGY (CODE)	YEAR USE STARTED (YYYY)	COMMENT (For Hybrid Cooling, identify % wet and % dry cooling)

NOTE: IF you use cooling technologies 1, 3 or 5 for your generating unit or utility boiler, please also answer CEC Form 1004

CEC 1006: Monthly Volume(s) Of Water Used By Power Plants

Purpose: These forms request information regarding the volume of water use (other than for once-through cooling) in power plants and the source of that water. This information will allow staff to monitor trends in water use and source and how energy related water use fits with statewide water demand and how it is affected by periodic drought conditions. California's water supplies will continue to be stretched during the next ten to twenty years and tracking water use at energy facilities will provide a common base of information for stakeholders. Water use information for power plant cooling is not systematically tracked or compiled by the Regional Water Quality Control Boards or the Department of Water Resources.

Who must file: Each energy service provider that generates or sells electricity to customers in California that is greater than 20MW (with the exception of solar photovoltaic and wind providers) and uses water for process or cooling towers. Self-generating facilities must also provide the requested information.

	0-0.99 MW	1-10 MW	10.1-20 MW	20.1-49.9 MW	>=50MW
BIOMASS	N	N	N	Y	Y
COAL (includes out of state)	N	N	N	Y	Y
DIGESTER GAS	N	N	N	Y	Y
GEOHERMAL	N	N	N	Y	Y
HYDRO	N	N	N	N	N
LANDFILL GAS	N	N	N	Y	Y
MUNI. SOLID WASTE	N	N	N	Y	Y
NUCLEAR	N	N	N	N	Y
OIL/NATURAL GAS	N	N	N	Y	Y
SOLAR PV	N	N	N	N	N
SOLAR THERMAL	N	N	N	Y	Y
WIND	N	N	N	N	N

When to file: Submit no later than the 15th of February 2005. If requesting an extension, please see *Environmental Performance Report Forms and Instructions*, page 8.

How to file: Reports can be submitted on compact disc or diskette, e-mail or other digital media. Reports should be compatible with an IBM system.

Where to file:

California Energy Commission
EPR Data Response, MS-40
1516 Ninth Street
Sacramento, CA 95814

or

EPRDATA@energy.state.ca.us

If you have questions, contact us by email at:

EPRDATA@energy.state.ca.us.

Instructions for Form CEC 1006:

For each generating unit or utility boiler unit, provide a separate copy of this form.

Enter the generation company, cooperative, public division, or municipality name where indicated, and the remainder of the information as follows in each of the columns:

1. Water Use

Provide metered (not estimated) volume of water delivered and wastewater discharged in acre feet on a month to month basis. If you are a smaller facility, and only meter water use in gallons, please provide gallons used on a month to month basis. Larger facilities, or facilities metered on acre-feet, should provide acre-feet totals on a month to month basis.

2. Water Supply

Identify specific quantity and type of utilized water, using the codes provided below:

- 1** = Municipal potable water supply
- 2** = Recycled or degraded water
- 3** = Groundwater from owner-operated on-site wells (also classified as self-supply)
- 4** = Groundwater from off-site wells (which either owner or other party may operate)
- 5** = Owner-operated surface fresh water diversion (lake, river, etc.)
- 6** = Water transfer from freshwater supply (e.g. water bank, Federal or State water project)
- 7** = Ocean or estuarine water
- 8** = Other: Please describe in the comment field

CEC 1006: MONTHLY VOLUME(S) OF WATER USED BY POWER PLANT

Date of Submittal: _____
 Project Owner: _____
 Facility Name: _____
 Facility # or ID _____
 Unit # or ID _____

Reporting for Year: 2004
 Project Operator: _____

REQUEST: List monthly volumes of water used by the power plant for all processes in gallons or acre feet broken down by source and by unit.

MONTH	WATER USE (Small Facility) Gallons	WATER USE (Major Facility) Acre Feet	WATER SUPPLY SOURCE (CODE)	COMMENT
01				
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				

Note: If the facility has more than one generating unit or utility boiler, submit multiple copies of this form.

The template illustrates the preferred data layout; power plant owners may submit the data in a text or database format (such as Access) rather than a spreadsheet.

CEC 1007: Classification of Wastewater Disposal Method and Quantity Discharged

Purpose: These forms request information regarding power plant wastewater disposal method(s). This information will allow staff to monitor trends in wastewater disposal for correlation with water conservation and water quality issues, and be able to compare the effectiveness and costs of various methods. While this information is available for newly Energy Commission-licensed natural gas-fired power plants, it is not available for most of the generation fleet.

Who must file: Each energy service provider that generates or sells electricity to customers in California that is greater than 20MW and uses cooling technology with the exception of solar photovoltaic and wind providers. Self-generating facilities must also provide the requested information.

	0-0.99 MW	1-10 MW	10.1-20 MW	20.1-49.9 MW	>=50MW
BIOMASS	N	N	N	Y	Y
COAL (includes out of state)	N	N	N	Y	Y
DIGESTER GAS	N	N	N	Y	Y
GEOTHERMAL	N	N	N	Y	Y
HYDRO	N	N	N	N	N
LANDFILL GAS	N	N	N	Y	Y
MUNI. SOLID WASTE	N	N	N	Y	Y
NUCLEAR	N	N	N	N	Y
OIL/NATURAL GAS	N	N	N	Y	Y
SOLAR PV	N	N	N	N	N
SOLAR THERMAL	N	N	N	Y	Y
WIND	N	N	N	N	N

When to file: Submit no later than the 15th of February 2005. If requesting an extension, please see *Environmental Performance Report Forms and Instructions*, page 8.

How to file: Reports can be submitted on compact disc or diskette, e-mail or other digital media. Reports should be compatible with an IBM system.

Where to file:

California Energy Commission
EPR Data Response, MS-40
1516 Ninth Street
Sacramento, CA 95814
or
EPRDATA@energy.state.ca.us

If you have questions, contact us by email at:
EPRDATA@energy.state.ca.us .

Instructions for Form CEC 1007:

Enter the generation company, cooperative, public division, or municipality name where indicated, and the remainder of the information as follows in each of the columns:

1. **Unit Name or ID.** If your facility has more than one generating unit, please specify the cooling used at each unit on a separate line. Use the same names or ID's from Form CEC 1001.
2. **Wastewater Disposal Method:**
Identify specific wastewater disposal methods, using the codes provided below:

 1 = To Municipal Sewer
 2 = To Surface Water (lake, river, canal, etc.)
 3 = Owner Wastewater Injection Well
 4 = To Ocean or Estuary
 5 = To Evaporation Ponds
 6 = Zero Liquid Discharge (e.g., crystallized, dehydrated)
 7 = Other: Please describe in the comment field.
3. **Year.** Use four-digit year (e.g., 2001) for the start of operation.
4. **Quantity Used.** For each generating unit or utility boiler, provide the quantity of the waste on a month to month basis. Response should include the units of measure used in tracking the waste discharge (e.g., million gallons, acre feet, or tons).

CEC 1007: Classification of Wastewater Disposal Method and Quantity Discharged

Date of Submittal: _____ Reporting for Year: 2004
 Project Owner: _____ Project Operator: _____
 Facility Name: _____
 Facility # or ID: _____

REQUEST: Identify the type of wastewater disposal method, the year operation started, and the quantity of wastewater discharged on a unit by unit basis.

GENERATING UNIT NUMBER OR ID	WASTEWATER DISPOSAL METHOD (CODE)	YEAR METHOD STARTED OPERATION	QUANTITY DISCHARGED PER YEAR Check units used: __ million gallons __ acre feet __ tons	COMMENTS

The template illustrates the preferred data layout; power plant owners may submit the data in a text or database format (such as Access) rather than a spreadsheet.

CEC 1008: Hydroelectric Project and Powerhouse Questionnaire

Purpose: Through consultation with relicensing agencies and academic researchers, Energy Commission staff has learned that no comprehensive, systematic assessment, monitoring or data collection work has been done on the environmental effects of California's 14,000 MW hydropower system. The available information indicates that the second largest sector of California's generation system creates broad scale, and in some instances severe, impacts to inland aquatic ecosystems. More information and assessment is needed to understand the scope and potential severity of these impacts. These forms provide information on the locations and basic hydrology of California's hydroelectric system. With this initial information, staff intends to create a foundational assessment to which additional environmental information can be added over time.

FERC licenses 119 hydroelectric projects in California, totaling about 11,760 MW. FERC licenses hydro facilities on 30 to 50-year cycles. During the interim, monitoring data is generally not collected (although this is changing for current relicensing). During relicensing, intensive amounts of site specific hydrologic and environmental data are collected and analyzed. Since 1986, FERC has issued about 16 new licenses. Another 25 projects are in some phase of the relicensing process. The results of this relicensing procedure are that extensive amounts of current data may be available for a small subset of hydro projects throughout the state. Energy Commission staff have been unable to collect and synthesize this sporadic site specific information into a meaningful, broad level assessment that is comparable to our understanding of air emissions for the natural gas fleet.

Who must file: Each energy service provider that generates or sells electricity to customers in California that is generated using hydro power and that is one MW or larger.

	0-0.99 MW	1-10 MW	10.1-20 MW	20.1-49.9 MW	>=50MW
BIOMASS	N	N	N	N	N
COAL (includes out of state)	N	N	N	N	N
DIGESTER GAS	N	N	N	N	N
GEOHERMAL	N	N	N	N	N
HYDRO	N	Y	Y	Y	Y
LANDFILL GAS	N	N	N	N	N
MUNI. SOLID WASTE	N	N	N	N	N
NUCLEAR	N	N	N	N	N
OIL/NATURAL GAS	N	N	N	N	N
SOLAR	N	N	N	N	N
WIND	N	N	N	N	N

When to file: Submit no later than the 15th of February 2005. If requesting an extension, please see *Environmental Performance Report Forms and Instructions*, page 8.

How to file: Reports can be submitted on compact disc or diskette, e-mail or other digital media. Reports should be compatible with an IBM system.

Where to file:

California Energy Commission
EPR Data Response, MS-40
1516 Ninth Street
Sacramento, CA 95814
or
EPRDATA@energy.state.ca.us

If you have questions, contact us by email at:
EPRDATA@energy.state.ca.us OR call Jim McKinney at (916) 654-3999.

Instructions for Form CEC 1008:

A. Project and Powerhouse General Information

1. **FERC Project number.** This is number assigned by Federal Energy Regulatory Commission (FERC) with the initial license issuance.
2. **FERC license type.** Three types of licenses are associated with FERC regulations (see Title 18 CFR Part 4), and the appropriate box should be checked.
 - **FERC Major**
Is equivalent to a "Major unconstructed project" or "Major project – existing dam" under FERC license guidelines. A "Major unconstructed project" means any unlicensed water power project that would: (i) Have a total installed generating capacity of more than 1.5 MW; and (ii) Use the water power potential of a dam and impoundment which, at the time application is filed, have not been constructed. "Major project--existing dam" means a licensed or unlicensed, existing or proposed water power project that would: (i) Have a total installed generating capacity or more than 2,000 horsepower (1.5 MW); and (ii) Not use the water power potential provided by any dam except an existing dam.
 - **FERC Minor**
Is equivalent to a "minor water power project" under FERC license guidelines. A "minor power project" means any licensed or unlicensed, existing or proposed water power project that would have a total installed generation capacity of 2,000 horsepower (1.5 MW), or less.
 - **FERC Exemption**
Means that the hydropower project meets one of two criteria established by the Federal Energy Regulatory Commission: 1) Small hydropower projects, which are 5 megawatts or less, that will be built

at an existing dam, or projects that utilize a natural water feature for head or an existing project that has a capacity of 5 megawatts or less and proposes to increase capacity. Or 2) Conduit exemptions are authorized for generating capacities 15 megawatts or less for non-municipal and 40 megawatts or less for a municipal project. The conduit has to have been constructed primarily for purposes other than power production and be located entirely on non-federal lands.

3. **FERC license expiration date.** Date of expiration of current license.
4. **Project name if not FERC jurisdictional.** This is the identifying name assigned to federal projects which are not regulated by FERC.
5. **River/Stream Name(s).** This is the name of the primary water course on which the project is constructed. Many projects will have multiple river or streams feeding water through the powerhouses. Some may include interbasin transfers. Begin identification with the largest watercourse.
6. **Number of linear river miles.** This is from the point of inlet (or highest man-made feature) at the uppermost reservoir at maximum pool to the bottom of the lowermost tailrace (or lowest man-made feature).
7. **Powerhouse name, ID, Commercial Operation Date, and Location.** Each individual power house should be entered on the form with its respective EIA Powerhouse or Plant Id.
 - **Powerhouse name.** Name used for EIA filings.
 - **EIA ID.** The EIA Id is defined in Appendix B.
 - **Commercial Operation Date.** Date at which powerhouse began generating electricity and exporting to grid.
 - **County (CODE).** Report the two-digit county number where the powerhouse is located.

01 Alameda	21 Marin	40 San Luis Obispo
02 Alpine	22 Mariposa	41 San Mateo
03 Amador	23 Mendocino	42 Santa Barbara
04 Butte	24 Merced	43 Santa Clara
05 Calaveras	25 Modoc	44 Santa Cruz
06 Colusa	26 Mono	45 Shasta
07 Contra Costa	27 Monterey	46 Sierra
08 Del Norte	28 Napa	47 Siskiyou
09 El Dorado	29 Nevada	48 Solano
10 Fresno	30 Orange	49 Sonoma
11 Glenn	31 Placer	50 Stanislaus
12 Humboldt	32 Plumas	51 Sutter
13 Imperial	33 Riverside	52 Tehama
14 Inyo	34 Sacramento	53 Trinity
15 Kern	35 San Benito	54 Tulare
16 Kings	36 San Bernardino	55 Tuolumne
17 Lake	37 San Diego	56 Ventura
18 Lassen	38 San Francisco	57 Yolo
19 Los Angeles	39 San Joaquin	58 Yuba
20 Madera		

- **Location.** Provide geographic descriptions or digital geographic files of the location
8. **Bypass Reach name.** This is the name of the river or stream reach bypassed by river flows as water is diverted through canals / penstocks / powerhouses.
 9. **Bypass Reach location.** Provide geographic descriptions or digital geographic files of the location of each bypass reach from point of diversion to powerhouse tailrace.
 10. **Bypass Reach mileage.** Total miles of each bypassed river / stream reach for each powerhouse.
 11. **Infrastructure Location.** Provide geographic descriptions or digital geographic files of the location of each major infrastructure element: diversions, reservoirs, penstocks, fore and afterbays. For impoundments provide sufficient information to describe the shoreline location, and not just point information.
 12. **County.** Provide the county for which the infrastructure occurs. Codes are provided in A7.

B. Reservoir Storage

1. **Reservoir Name.** Name of each reservoir, forebay and afterbay.
2. **Associated Powerhouse.** Name or ID of each powerhouse associated with the above-referenced reservoir. There may be multiple powerhouses associated with a reservoir. For multiple powerhouses, identify only those powerhouses within each FERC project.
3. **Usable Storage Capacity.** Describe useable storage capacity in acre-feet.
4. **Water Retention Time.** Indicate how much water the reservoir was designed to hold in days.
5. **Surface Area of Impoundment.** Indicate the reservoir surface acreage at maximum pool.
6. **Estimated Innundation of River / Stream Miles.** Provide an estimate of the linear miles of river / stream reach inundated by reservoir, forebay or afterbay at maximum pool.

C. Sedimentation

1. **Reservoir and Powerhouse Names.** Same as B 1 and 2.
2. **Sedimentation Problem?** A “problem” is intended to mean: Is it an issue of concern to reservoir and operations managers?
3. **Percentage Reduction.** Please estimate the percentage reduction in usable storage capacity from sedimentation.
4. **Sediment Management Measures.** Provide yes/no response, and for yes answers, reply to C 5.

5. **Sediment Management Measures.** Indicate type of Sediment Management measure(s) using indicted codes. Multiple codes are allowed. Codes used for sedimentation management:
 - W = Watershed land management
 - D = Dredging
 - M = Monitoring
 - S = Sluicing

D. Peaking Energy Production

1. **Powerhouse Name or ID.** Same as A 7.
2. **Average Annual Peaking Energy.** In GWh, denote the amount of average peaking energy produced each year. Average should be based on a minimum 10-year record. "Peaking Energy" is defined according to the Standard Offer Contract No. 4 definition: Energy produced between noon and 6:00 pm on non-holiday weekends from May 1 to September 30. Response should include the water-years used in making the average.
3. **Peaking Energy as Percentage of Total Energy.** Using the same period of record for average annual peaking energy as D 2, describe the percentage of total energy produced that is "peaking energy" as defined in D 2.
4. **Is the Unit(s) Dispatchable?** Does the powerhouse unit(s) have the capability of being dispatched; e.g. use water from storage?
5. **Was the Unit Dispatched?** If unit was dispatched during 2003, answer with a yes, otherwise answer with a no.

E. Operations Relative to Hydrology

1. **Powerhouse Name or ID.** Same as A 7.
2. **Operator's Stream Gauge.** Name of gauge(s) operated by project owner. If not applicable, provide name of nearest U.S. Geological Survey (USGS) stream gauge.
3. **Corresponding USGS number.** Provide USGS gauge number(s).
4. **Peak Streamflow Prior to Development.** Provide the peak recorded streamflow at the dam site in cubic feet per second prior to construction of the hydro facilities. Indicate year of occurrence.
5. **Peak Streamflow Since Project Development.** Provide the peak recorded streamflow below the dam in cubic feet per second subsequent to construction of the hydro facilities. Indicate year of occurrence.
6. **Average Annual Unimpaired Flow Below Dam.** Based on a minimum 10-year period of record, provide the average annual unimpaired flow in acre-feet per year. Indicate period of record Response should include the water-years used in making the average.
7. **Flows Through Powerhouse.** Provide the average annual flow through each powerhouse in acre-feet per year based on a minimum 10-year

period of record. Response should include the water-years used in making the average.

8. **Interbasin Flow Imports.** If applicable, indicate if water is imported from another hydrologic basin with a yes/no answer.
9. **Interbasin Flow Imports Quantity.** If applicable, provide the average annual volume in acre-feet per year based on a minimum 10-year period of record. Indicate the period of record in the column.
10. **Minimum Instream Flows.** Indicate if FERC-mandated minimum instream flows are required for each bypass reach identified in A 10 with a yes/no answer.
11. **Minimum Instream Flow for Normal Water Year.** Indicate the FERC-required minimum instream flow in cubic feet per second based on a normal water year for each bypass reach identified in A 10. For federal projects, provide comparable information.
12. **Average Annual Instream Flow Volume.** For a normal water year, indicate the total average annual volume of instream flow in acre-feet per year based on a minimum 10-year period of record. Response should include the water-years used in making the average.

CEC 1008: Hydroelectric Project and Powerhouse Questionnaire

Date of Submittal: _____
 Project Owner: _____
 Facility Name: _____

Reporting for Year: 2003
 Project Operator: _____

A. Project and Powerhouse General Information

Please provide the following information for the hydropower project. For FERC-regulated projects with multiple powerhouses, provide data at the FERC project level and at the powerhouse level, as indicated

FERC project number	
FERC license type	<input type="checkbox"/> Major <input type="checkbox"/> Minor <input type="checkbox"/> Exemption
FERC license expiration date	
Project name if not FERC jurisdictional	
River/Stream Name(s)	
Number of linear river miles associated with the project (from point of inlet at the uppermost reservoir to bottom of lowermost tailrace)	
Total average annual inflow to project (acre-feet/year)	
Powerhouse	
1) Powerhouse name :	
EIA Powerhouse / Plant ID:	
Commercial operation date:	
County (CODE):	
Location (Latitude/Longitude)	
Other Powerhouses (If applicable)*	
2) Powerhouse name:	
Commercial operation date:	
EIA Powerhouse / Plant ID:	
County (CODE):	
Location (Latitude/Longitude)	
3) Powerhouse name:	
Commercial operation date:	
EIA Powerhouse / Plant ID:	
County (CODE):	
Location (Latitude/Longitude)	

*Add more rows as needed to accommodate larger projects.

CEC 1008: Hydroelectric Project and Powerhouse Questionnaire (continued)

Please identify the name, location (UTM or latitude/longitude coordinates) and length of bypass reaches in linear miles (diversion point to tailrace) associated with each powerhouse or provide a contact for Energy Commission staff to request geographically referenced electronic files.

Powerhouse Name or ID	By-Pass Name	Location	Length (miles)

Please provide a set of Global Positioning System (GPS) coordinates for the impoundment(s) (storage, forebays and afterbays) (UTM coordinates or latitude/longitude) or provide a contact for Energy Commission staff to request geographically referenced electronic files.

Infrastructure Name	Location	County (CODE)

B. Reservoir Storage

Please provide the following information for each reservoir and associated powerhouse. Please indicate (N/A) if any of the questions are not applicable to the powerhouse.

Reservoir Name	Associated Powerhouse(s) Name or ID	Maximum storage capacity of reservoir (acre-feet)	Usable storage capacity of reservoir (acre-feet)	Water retention time in reservoir (days)	Surface area of impoundment (acres)	Estimated number of linear miles of river or stream inundated by reservoir (miles)

CEC 1008: Hydroelectric Project and Powerhouse Questionnaire (continued)

C. Sedimentation

If there is a reservoir or forebay associated with the powerhouse, please answer the following questions about existing or potential sedimentation problems.

Reservoir Name	Associated Powerhouse Name or ID	Is reservoir sedimentation a problem now or expected to be within 20 years? (Yes/No)	By what percentage has sedimentation reduced the usable storage capacity of the impoundment?	Are measures being taken to manage sedimentation? (Yes/No)	If yes, indicate the type of sedimentation management (see codes)*

*Codes for sedimentation management:

W = Watershed land management

M = Monitoring

D = Dredging

S = Sluicing

D. Peaking Energy Production

Please answer the following questions about peaking energy production and its dispatchability.

Powerhouse Name or ID	Average annual peaking energy* produced (GWh/yr) Indicate year of occurrence**: _____	Percent of total energy produced (%) that was peaking production	Is the generating unit dispatchable? (e.g., capable of utilizing water from storage) (Yes/No)	Was the generating unit dispatched during the reporting year (2003)? (Yes/No)

* Peaking energy is defined as generation between noon and 6:00 pm on non-holiday weekdays from May 1 to September 30

** Provide the water year(s) used to create this entry

CEC 1008: Hydroelectric Project and Powerhouse Questionnaire (continued)

E. Operations Relative to Hydrology

Please provide the following information for the project's powerhouses. Please indicate (N/A) if any of the questions are not applicable to the powerhouse.

Powerhouse Name or ID (List All)	Operator's stream gauge station name or number for this powerhouse:	Corresponding US Geological Survey (USGS) number for stream gauge:

Powerhouse Name or ID	Peak streamflow prior to project development (cubic feet per second) Indicate year of occurrence: _____	Peak streamflow below dam since project development (cubic feet per second) Indicate year of occurrence: _____	Average annual unimpaired flow below dam (AF/yr) Provide the period of record*: _____

* Provide the water year(s) used to create this entry

CEC 1008: Hydroelectric Project and Powerhouse Questionnaire (continued)

Powerhouse Name or ID	Average annual flow through powerhouse (Acre feet/year) Provide the period of record*: _____	Are inflows to powerhouse imported from another watershed? (Yes/No)	Average annual volume of imported water (Acre feet/year) Provide the period of record*: _____	Are minimum instream flows required for a bypass reach of river? (Yes/No)	Minimum instream flow or flow regime for the bypass reach of river in a normal water year (cubic feet per second)	Average annual flow released in bypass reach of river in a normal water year (Acre feet/year) Provide the period of record*: _____

* Provide the water year(s) used to create this entry

The templates illustrate the preferred data layout; power plant owners may submit the data in a text or database format (such as Access) rather than a spreadsheet.

CEC 1009: Socioeconomic Benefits of Electrical Generation Facilities

Purpose: The employment, payroll and tax benefits of power plants are not uniformly collected or assessed by any agency or institution in California. The collection of basic socioeconomic data for electric generation facilities will enable Energy Commission staff to show the economic and fiscal benefits (and potential loss) from the operation or closure of electric generation facility types in all sectors.

Who must file: Each energy service provider that generates or sells electricity to customers in California that is one MW or larger. Self-generating facilities must also provide the requested information.

	0-0.99 MW	1-10 MW	10.1-20 MW	20.1-49.9 MW	>=50MW
BIOMASS	N	Y	Y	Y	Y
COAL (includes out of state)	N	Y	Y	Y	Y
DIGESTER GAS	N	Y	Y	Y	Y
GEOTHERMAL	N	Y	Y	Y	Y
HYDRO	N	Y	Y	Y	Y
LANDFILL GAS	N	Y	Y	Y	Y
MUNI. SOLID WASTE	N	Y	Y	Y	Y
NUCLEAR	N	N	N	N	Y
OIL/NATURAL GAS	N	Y	Y	Y	Y
SOLAR PV	N	Y	N	N	N
SOLAR THERMAL	N	Y	Y	Y	Y
WIND	N	Y	Y	Y	Y

When to file: Submit no later than the 15th of February 2005. If requesting an extension, please see *Environmental Performance Report Forms and Instructions*, page 8.

How to file: Reports can be submitted on compact disc or diskette, e-mail or other digital media. Reports should be compatible with an IBM system.

Where to file:

California Energy Commission
EPR Data Response, MS-40
1516 Ninth Street
Sacramento, CA 95814

or

EPRDATA@energy.state.ca.us

If you have questions, contact us through e-mail at:

EPRDATA@energy.state.ca.us.

Instructions for Form CEC 1009:

Enter the generation company, cooperative, public division, or municipality name where indicated, and the remainder of the information as follows in each of the columns:

1. **Facility Name.** Enter the name of each facility (power plant) owned and operated by the company, cooperative, public division, or municipality.
2. **CEC Plant ID.** The California Energy Commission will assign this code of identification when the power plant is first reported. The respondent should use the Energy Commission assigned code if already available, otherwise leave blank if you have not been assigned a code.
3. **Average Energy Facility Permanent Operations Employees.** Enter the average number of permanent operations workers employed at the energy facility during the previous calendar year. This does not include contract workers. The facility owner may submit a copy of FERC Form 1, page 402 (for large steam-electric generating plants) or page 406 (for large hydroelectric generating plants), for the energy facilities identified on this form in lieu of providing a response to this request.
4. **Total Payroll for Permanent Operations Employees.** Enter the total payroll for permanent operations employees during the previous calendar year.
5. **Average Energy Facility Contract Operations Employees.** Enter the average number of contract operations workers employed at the energy facility during the previous calendar year.
6. **Total Contract Operations Payroll.** Enter the total payroll for contract operations employees during the previous calendar year.
7. **Total Property Taxes Paid.** Enter the total amount of property taxes paid for the energy facility and related facilities in the previous calendar year. This should correspond to the parcel(s) identified on Form CEC 1001
8. **Total Sales Taxes Paid.** Enter the total amount of sales taxes paid for the purchase of material and equipment related to operations of the energy facility and related facilities in the previous calendar year.
9. **Total City or County Taxes Paid.** Enter the total amount of city or county taxes paid related to operation of the energy facility during the previous calendar year.
10. **Total Franchise or Other Local Fees Paid.** Enter the total amount of franchise and other local fees paid related to the operation of the energy facility during the previous calendar year.

11. Transfers/Payments in Lieu of Taxes. Enter the total amount of Transfers/Payments in Lieu of Taxes paid related to the operation of the energy facility during the previous calendar year.

CEC 1009: Socioeconomic Benefits of Electrical Generation Facilities

Date of Submittal: _____

Reporting for Year: 2004

Project Owner: _____

Project Operator: _____

FACILITY NAME	CEC PLANT ID	AVERAGE ENERGY FACILITY PERMANENT OPERATIONS EMPLOYEES	TOTAL PAYROLL FOR PERMANENT OPERATIONS EMPLOYEES	AVERAGE ENERGY FACILITY CONTRACT OPERATIONS EMPLOYEES	TOTAL CONTRACT OPERATIONS PAYROLL

The template illustrates the preferred data layout; power plant owners may submit the data in a text or database format (such as Access) rather than a spreadsheet.

CEC 1009: Socioeconomic Benefits of Electrical Generation Facilities (continued)

FACILITY NAME	CEC PLANT ID	TOTAL PROPERTY TAXES PAID	TOTAL SALES TAXES PAID	TOTAL CITY OR COUNTY TAXES PAID	TOTAL FRANCHISE OR OTHER LOCAL FEES PAID	TRANSFERS/ PAYMENTS IN LIEU OF TAXES

The template illustrates the preferred data layout; power plant owners may submit the data in a text or database format (such as Access) rather than a spreadsheet.

APPENDIX B: TERMS USED IN THIS DOCUMENT

“Biomass” is used when the primary fuel is: Agriculture Crop Byproducts/ Straw/Energy Crops, Black Liquor, Other Biomass Solids (Animal Manure and Waste, Solid Byproducts, and Other Solid Biomass not specified), Other Biomass Liquids (Fish Oil, Liquid Acetonitrile Waste, Medical Waste, Tall Oil, ethanol, Waste Alcohol, and Other Biomass Liquids not specified), Other Biomass Gases (Digester Gas, Methane, and other Biomass Gases), Wood/Wood Waste Solids (Paper Pellets, Railroad Ties, Utility Poles, Wood Chips, and Other Wood Solids), or Wood Waste Liquids (Red Liquor, Sludge Wood, Spent Sulfite Liquor, and other Wood Related Liquids not specified)

“Cogenerator” means an electric power plant that produces (1) electricity; and (2) useful thermal energy for industrial, commercial, heating, or cooling purposes.

“Coal” is used when the primary fuel is: Bituminous Coal, Lignite, Subbituminous Coal, Waste/Other Coal (Anthracite Coal, Coal Mixtures, Coke, Breeze, Tar, Coal), or Petroleum Coke

“EIA” means the Energy Information Administration of the United States Department of Energy.

“Electric generator” means a machine that converts mechanical energy into electrical energy; or a device that converts non-mechanical energy to electricity directly, including without limitation photovoltaic solar cells and fuel cells. For the purposes of this report, all of the wind turbines in an electric power plant shall be collectively considered as one single electric generator.

“Electric power plant” means a plant located in California or a California control area that contains one or more prime movers, one or more electric generators, and appropriate auxiliary equipment.

“Electric service provider” or “ESP” means any company that sells electricity to end-use customers and that is not an electric utility.

“Electric utility” means any company engaged in, or authorized to engage in, generating, transmitting, or distributing electric power by any facilities, including, but not limited to, any such company subject to regulation of the Public Utilities Commission.

“Geothermal” is used when the primary fuel is: Geothermal (steam or brine)

“Landfill Gas” is used when the primary fuel is: Landfill Gas

“Municipal Solid Waste” is used when the primary fuel is: Municipal Solid Waste, or Tires

“Nameplate capacity” means the full-load continuous rating of an electric generator or an electric power plant under specific conditions as designated by the manufacturer.

“Natural Gas” is used when the primary fuel is: Natural Gas, Propane, Blast-Furnace Gas, or Other Gas (Coke-Oven, Coal Processes, Butane, Refinery, Other Processes)

“Net generation” means gross generation less plant use by an electric generator for auxiliary equipment.

“Nuclear” is used when the primary fuel is: Nuclear (Uranium, Plutonium, Thorium)

“Oil” is used when the primary fuel is: Distillate Fuel Oil (all Diesel, and No. 1, No. 2, and No. 4 Fuel Oils), Jet Fuel, Kerosene, Residual Fuel Oil (includes No 5, and No 6 Fuel Oil, and Bunker C Fuel Oil), or Oil-Other, and Waste Oil (Butane [Liquid], Crude Oil, Liquid Byproducts, Propane [Liquid], or Oil Waste, Re-Refined Motor Oil, Sludge Oil, Tar Oil)

“Power plant owner” means the owner of an electric power plant, or, where there is more than one owner, the majority or plurality owner or the managing partner.

“Solar Photovoltaic” or “Solar PV” is used when the primary fuel is sunlight. PV cells are made of a semiconductor material, typically silicon, which is treated chemically to create a positive charge layer and a negative charge layer. When sunlight strikes a PV cell, an electron is dislodged.

“Solar Thermal” is used when the primary fuel is the sun's heat. A solar thermal electric power plant generates heat by using lenses and reflectors to concentrate the sun's energy on a fluid. The heated fluid produces steam which can be used in a conventional steam turbine generator or in a small motor. Solar thermal facilities may also use natural gas to supplement the heat input.

“Utility distribution company” or “UDC” means an electric utility, or a business unit of an electric utility, that distributes electricity to customers.

“Wind” is used when the primary fuel is: Wind